



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/581,724

09/18/2008

Ikuo Kawamoto

062602

8559

38834

7590

12/10/2009

WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP
1250 CONNECTICUT AVENUE, NW
SUITE 700
WASHINGTON, DC 20036

EXAMINER

BRIGGS, NATHANAEL R

ART UNIT

PAPER NUMBER

2871

NOTIFICATION DATE

DELIVERY MODE

12/10/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentmail@whda.com

Office Action Summary	Application No. 10/581,724	Applicant(s) KAWAMOTO ET AL.	
	Examiner NATHANAEL R. BRIGGS	Art Unit 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>6/5/06; 11/15/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103 (a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-19 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Umeda et al. (US 2003/0067572) in view of Okamoto et al. (US 6,791,640).

3. Regarding claim 1, Umeda discloses a method of producing an elliptically polarizing plate (see figure 14 (a), for instance) comprising the steps of: forming a first birefringent layer (46) on a surface of a transparent protective film (45c); laminating a polarizer (44) on a surface of the transparent protective film (45c); and forming a second birefringent layer (46a) by laminating a polymer film on a surface of the first birefringent layer (see Umeda figure 14 (a), Okamoto figure 2, for instance), wherein: the first birefringent layer (46) and the polarizer (44) are arranged on opposite sides of the transparent protective film (45c); the step of forming a first birefringent layer comprises the steps of (see paragraph [0320]): applying an application liquid containing a liquid crystal material to a substrate (45c) subjected to alignment treatment; forming a first birefringent layer (46) on the substrate by treating the applied liquid crystal material at a temperature at which the liquid crystal material exhibits a liquid crystal phase; and transferring the first birefringent layer (46) formed on the substrate to a surface of the transparent protective film (45c). However, Umeda does not expressly disclose wherein

Art Unit: 2871

angles α and β satisfy a relationship represented by the following expression

(1): $2\alpha + 40^\circ < \beta < 2\alpha + 50^\circ$ (1) where, α represents an angle formed between a slow axis of the polarizer and a slow axis of the first birefringent layer, and β represents an angle formed between the absorption axis of the polarizer and a slow axis of the second birefringent layer.

4. Regarding claim 1, Okamoto discloses an elliptically polarizing plate (see figure 2, for instance) wherein angles α and β satisfy a relationship represented by the following expression (see column 15, lines 14-20(see Umeda figure 14 (a), Okamoto figure 2, for instance), wherein $\theta_1 = 75^\circ$ and $\theta_2 = 15^\circ$): $2\alpha + 40^\circ < \beta < 2\alpha + 50^\circ$ (1) where, α represents an angle formed between a slow axis of the polarizer and a slow axis of the first birefringent layer, and β represents an angle formed between the absorption axis of the polarizer and a slow axis of the second birefringent layer.

5. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the angular relationship of Okamoto in the method of Umeda, Umeda in view of Okamoto discloses the motivation for doing so would have been to simplify fabrication while improving display brightness, as taught by Okamoto (column 15, lines 39-51). Claim 1 is therefore unpatentable.

6. Regarding claim 2, Umeda in view of Okamoto discloses the method according to claim 1 (see Umeda figure 14 (a), Okamoto figure 2, for instance), wherein: the polarizer (43), the transparent protective film (45c), the first birefringent layer (46) formed on the substrate, and the polymer film (46a) used for forming the second birefringent layer are each a continuous film; long sides of the polarizer (43), the

Art Unit: 2871

transparent protective film (45c), and the first birefringent layer (46) formed on the substrate are continuously attached together to form a laminate including the polarizer (43), the transparent protective film (45c), the first birefringent layer (46), and the substrate in the stated order; the substrate is peeled off from the laminate; and long sides of the laminate having the substrate peeled off and the polymer film used for forming the second birefringent layer are continuously attached together. Claim 2 is therefore unpatentable.

7. Regarding claims 3 and 10, Umeda in view of Okamoto discloses the method according to claims 1 and 2 (see Umeda figure 14 (a), Okamoto figure 2, for instance), wherein the liquid crystal material comprises at least one of a liquid crystal monomer and a liquid crystal polymer ([0320]). Claims 3 and 10 are therefore unpatentable.

8. Regarding claims 4, 11, and 12, Umeda in view of Okamoto discloses the method according to claims 1-3 (see Umeda figure 14 (a), Okamoto figure 2, for instance), wherein the first birefringent layer (46) comprises a $\lambda/2$ plate. Claims 4, 11 and 12 are therefore unpatentable.

9. Regarding claims 5 and 13-15, Umeda in view of Okamoto discloses the method according to claims 1-4 (see Umeda figure 14 (a), Okamoto figure 2, for instance), wherein the second birefringent layer (46a) comprises a $\lambda/4$ plate. Claims 5 and 13-15 are therefore unpatentable.

10. Regarding claims 6 and 16-19, Umeda in view of Okamoto discloses the method according to claims 1 and 2-5 (see Umeda figure 14 (a), Okamoto figure 2, for

Art Unit: 2871

instance), wherein the substrate comprises a polyethylene terephthalate film ([0264]).

Claims 6 and 16-19 are therefore unpatentable.

11. Regarding claim 7, Umeda in view of Okamoto discloses the method according to claim 1 (see Umeda figure 14 (a), Okamoto figure 2, for instance), wherein the polymer film comprises a stretched film. Claim 7 is therefore unpatentable.

12. Regarding claim 8, Umeda in view of Okamoto discloses an elliptically polarizing plate, which is produced through the method according to claim 1. Claim 8 is therefore unpatentable.

13. Regarding claim 9, Umeda in view of Okamoto discloses an image display apparatus, which comprises the elliptically polarizing plate according to claim 8. Claim 9 is therefore unpatentable.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NATHANAEL R. BRIGGS whose telephone number is (571)272-8992. The examiner can normally be reached on 9 AM - 5:30 PM Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571) 272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2871

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nathanael Briggs
12/5/2009

/David Nelms/
Supervisory Patent Examiner, Art Unit 2871